BILL NO. S-81-06-24

SPECIAL ORDINANCE NO. S-159-81

AN ORDINANCE approving Change Order No. 1, St. Joe Study Area, Sewer Improvement Resolution No. 312-80, Federal Grant No. C-18-599-06.

BE IT ORDAINED BY THE COMMON COUNCIL OF THE CITY OF FORT WAYNE, INDIANA:

SECTION 1. That Change Order No. 1 to Weitzel Construction, Contractor, in connection with the St. Joe Study Area Project, for:

This change is due to excessive fluid ground conditions,

in the amount of $118,071.00, as set out in the specifications which are on file in the Office of the Board of Public Works and are by reference incorporated herein and made a part hereof, be and the same is in all things ratified, confirmed and approved.

SECTION 2. That this Ordinance shall be effective from and after its passage and approval by the Mayor.

COUNCILMAN

APPROVED AS TO FORM AND LEGALITY JUNE 19, 1981.

BRUCE O. BOXBERGER, CITY ATTORNEY

Read the first time in full and on motion by Burns, seconded by Talarico, and duly adopted, read the second time by title and referred to the Committee City Utilities (and the City Plan Commission for recommendation) and Public Hearing to be held after due legal notice, at the Council Chambers, City-County Building, Fort Wayne, Indiana, on _____, the _____ day of _____, 19____, at _____ o'clock ___M.,E.S.T.

DATE: 6-23-81

Charles W. Westerman
CHARLES W. WESTERMAN
CITY CLERK

Read the third time in full and on motion by Burns, seconded by Eisbart, and duly adopted, placed on its passage. PASSED ~~(LOST)~~ by the following vote:

	AYES	NAYS	ABSTAINED	ABSENT	TO-WIT:
TOTAL VOTES	9				
BURNS	X				
EISBART	X				
GiaQUINTA	X				
NUCKOLS	X				
SCHMIDT, D.	X				
SCHMIDT, V.	X				
SCHOMBURG	X				
STIER	X				
TALARICO	X				

DATE: 7-14-81

Charles W. Westerman
CHARLES W. WESTERMAN - CITY CLERK

Passed and adopted by the Common Council of the City of Fort Wayne, Indiana, as ~~(ZONING MAP) (GENERAL) (ANNEXATION)~~ (SPECIAL) ~~(APPROPRIATION)~~ ORDINANCE ~~(RESOLUTION)~~ No. S-159-81 on the 14th day of July, 19 81.

ATTEST: (SEAL)

Charles W. Westerman
CHARLES W. WESTERMAN - CITY CLERK

John Nuckols
PRESIDING OFFICER

Presented by me to the Mayor of the City of Fort Wayne, Indiana, on the 15th day of July, 19 81, at the hour of 11:32 o'clock A. M.,E.S.T.

Charles W. Westerman
CHARLES W. WESTERMAN - CITY CLERK

Approved and signed by me this 20th day of July 19 81, at the hour of 11 o'clock A M.,E.S.T.

Winfield C. Moses, Jr.
WINFIELD C. MOSES, JR.
MAYOR

BILL NO. S-81-06-24

REPORT OF THE COMMITTEE ON CITY UTILITIES

WE, YOUR COMMITTEE ON City Utilities TO WHOM WAS REFERRED AN ORDINANCE approving Change Order No. 1, St. Joe Study Area, Sewer Improvement Resolution No. 312-80, Federal Grant No. C-18-599-06

HAVE HAD SAID ORDINANCE UNDER CONSIDERATION AND BEG LEAVE TO REPORT BACK TO THE COMMON COUNCIL THAT SAID ORDINANCE DO PASS.

PAUL M. BURNS, CHAIRMAN

VIVIAN G. SCHMIDT, VICE CHAIRMAN

BEN A. EISBART

SAMUEL J. TALARICO

ROY J. SCHOMBURG

7-14-81
DATE

CONCURRED IN
CHARLES W. WESTERMAN, CITY CLERK

Memorandum

To Board of Public Works
Attention: Clerk

Date 2 June 1981

From C. Duane Embury, P.E., Chief Water Pollution Control Engineer

Subject ST. JOE STUDY AREA - Resolution 312-80 - B.O. #15-80
Federal Grant C-180599-06 - Weitzel Construction, Contractor
Change Order No. 1

COPIES TO:

Williams
Behrana
Boller
Contract File
Chrono

Attached herewith is an executed copy of Change Order No. 1 for subject Resolution. You will note that this Change Order has been hand-carried to the Indiana Stream Pollution Control Board of their review and approval.

Considering the Board of Public Works has approved this document, this Department recommends tha the Clerk of the Board schedule on the Common Council of the City of Fort Wayne's docket the introduction of the referenced Resolution for 9 June 1981 for first reading.

The Change Order for this Resolution is an increase of $118,071.00.

If you should have any questions regarding this Change Order, please see me personally.

Respectfully submitted,

C Duane Embury LRW

C. Duane Embury, P.E., Chief
Water Pollution Control Engineer

CDE/ns

Attachment: Change Order No. 1 - Weitzel Construction

DATED: 6-2-81

Received this date from Water Pollution Control Engineering, the above-referenced Change Order No. 1 to be introduced into Council on 9 June 1981.

Sandra E Kennedy
Clerk, Board of Public Works

mor approval written
6/9/81

70-2[illegible]-9 6/4/81

70-205 / 6/4/81

CHANGE ORDER

Change Order No. 1
Project No. C-180599-06
Name of Project: CONCORDIA GARDENS SANITARY SEWER

Resolution No. 312-80
Board Order No. 15-80
Date:

To: WEITZEL CONSTRUCTION
(Contractor)

Gentlemen:

You are hereby requested to comply with the following changes from the contract plans and specifications:

Item No.	Quantity	Description of Change Description	Unit Price	Change in Contract Price Decrease	Increase
		SEE ATTACHED SHEET			
			Total Decrease	99,025.00	
			Total Increase		217,096.00
		Net (~~Decrease~~)(Increase)	Contract Price		118,071.00

The sum of $ 118,071.00 is hereby (added to)(~~deducted from~~) the total contract price and the final contract price shall be adjusted as follows:

Original Contract Price	$ 914,484.00
Current Contract Price Adjusted by Previous Change Order	$
New Contract Price including this Change Order	$1,032,555.00

The time provided for completion in the contract for this project is (unchanged)(~~increased~~) (~~decreased~~) by -0- calendar days due to this Change Order. The date for completion of all work shall be N/A. Furthermore, this document shall become an amendment to the contract and all provisions of the contract shall apply hereto.

Recommended by: C. Duane Embury C. Duane Embury, P.E. Chief Engineer Date 6/2/81

Accepted by: Contractor Date 6/2/81

Approved by: City Engineer Date 6/2/81

Approved by: Owner Date 6/2/81

Betty R Collins

Attested by: Clerk Date 6/2/81

ATTACHMENT TO CHANGE ORDER
RESOLUTION 312-80 - "CONCORDIA GARDENS SANITARY SEWER"
WEITZEL CONSTRUCTION, Contractor

Item No.	Quantity	Description of Change Description	Unit Price	Change in Contract Price Decrease	Increase
11	4,600± CY	Special Backfill	9.50		43,700.00
12	6,500± CY	#53 or #73 special backfill	13.35	86,775.00	
19	26,315± SY	2" Asphaltic Surface	3.40		89,471.00
23	4,000± LF	4"-12" Field Tile Replacement	6.25		25,000.00
27	1,500± LF	8"-15" Culvert Replacement	7.00		10,500.00
28	500± LF	Dewatering	24.50	12,250.00	
33	1,500± CY	Base Stabilization	12.35		18,525.00
34	40± EA	Exploratory Excavation	50.00		2,000.00
35	6,200± LF	Additional excavating (overcutting)	4.50		27,900.00
			Total Decrease	99,025.00	217,096.00
			Total Increase		
		Net (~~Decrease~~) (Increase)	Contract Price		118,071.00

Change Order No. 1

Resolution No. 312-80

Board Order No. 15-80

REQUEST AND JUSTIFICATION FOR CHANGE

1. Necessity for change: "SEE ATTACHED SHEET"

2. Will proposed change alter size of the project? Yes _____ No X

If yes, explain

3. Affect on operation and maintenance cost of this project:

N/A

Lloyd R. Williams

Project Engineer

JUSTIFICATION FOR CHANGE ORDER NO. 1
ST. JOE STUDY AREA - Resolution 312-80
"CONCORDIA GARDENS"
Weitzel Construction, Contractor

Items 11 and 12

There are two different types of backfill material in our specifications:

1) Special backfill is nothing but 'B' Borrow or Bankrun gravel.

2) #53 or #73 special backfill as stated in our specifications can either be gravel backfill or stone backfill.

The #53 or #73 special backfill costs more and hence, better material than bankrun gravel. However, in this project #53 or #73 special backfill was incorrectly specified on plans. Since the specification does state that "all sewers installed under improved streets and running parallel with the streets shall have special backfill ('B' Borrow) and sewers running across an improved street shall have #53 or #73 special backfill. Therefore, this change order is to correct this situation and hence, special backfill quantity is being increased and #53 or #73 special backfill is being decreased. The City is also receiving a savings in cost by interchanging the two items. The remaining #53 or #73 special backfill shall than be used for Street crossings and street subbase for restoration.

Item 19

After awarding of contract, the Water Pollution Control Engineering Department was informed by the bidding contractor that it appeared that our 2" asphaltic surface quantity was under estimated. Upon checking our quantities, it became apparent that this was the case, and, this Change Order is to correct it.

Items - 23, 27 and 34

As construction progressed, the contractor came in direct conflict with existing tiles much more than was anticipated. A major percentage of these tiles have no record of their location and all of them were installed privately several years ago.

In order to get an approximate additional quantity of tiles to be encountered, the Engineering Department directed the contractor to do exploratory excavation. Test holes were dug at various locations on this project, which, in fact, resulted in better understanding on the additional quantity of tiles to be replaced and some more insight for ground conditions.

The Engineering Department had to make the decision on one of the following two alternatives:

1. Move the proposed sewer towards the pavement and therefore avoid the tiles.
2. Leave the proposed sewer as designed and keep replacing the existing tiles and driveway culverts.

Cost analysis was done on the above two (2) alternatives and as it turned out, alternate #2 was more cost-effective than alternate #1. This is due to the fact that alternate #1 would require approximately 5,500± CY of special backfill under the improved streets and at a price of $9.50/CY, the additional cost would be a minimum of $52,250.00 compared to 4000± LF of additional tile replacement at a total additional cost of $25,000.00.

In addition to the above additional tile replacement, there is also additional driveway culvert replacements involved. When the surveying crew was taking plan and profiles on this project, they only picked up those culverts which they could see visually. Therefore, whatever the surveyors had in the field books was noted on the design plans.

As construction progressed, it was revealed that plans did show less quantity of culverts than what was actually being excavated from the trenching operations. Test holes also revealed that approximately half the culverts on this project are buried under the driveways. This is due to the fact that property owners several years ago filled up their drainage swales and installed drainage tiles and connected to their culverts. This is quite common in subdivision of Allen County and is referred to as "blind ditching." Consequently, this kind of arrangement cannot be seen by the naked eye and hence, never noted on design plans. The additional quantity of culverts to be replaced is estimated at 1,500± LF at a total cost of $10,500.00.

Therefore, the total additional cost of replacing both the existing tiles and culverts and doing exploratory excavation is $37,500 which is $14,750 cost effective than Alternate #1 as discussed above. Hence, decision to move the sewer toward the street was not practical and cost-effective.

The Engineering Department has reviewed the attached cost breakdown on exploratory excavation and finds it acceptable and on the whole extremely beneficial.

Items 28, 33 and 35

At the time exploratory excavation was being done, the Engineering Department also investigated into the ground conditions. Since the construction has started, the contractor has been continuously battling with ground water. Fluid ground conditions have cut production down by 30% and the contractor has been using large quantities of base stabilization to control water. Test borings have revealed that approximately 6200± LF, which is 30% of the project, has ground water which needs to be controlled either by extensive dewatering system or use 15-inches to 18-inches of base stabilization under the pipe. It also made us aware that the east side of Concordia Gardens

Addition which is close to the river has got gravelly soil, which is completely super saturated and the west side of Concordia Gardens is dry consisting of hard clay.

The Engineering Department obviously underestimated the dewatering quantity and base stabilization and hence, the following two alternatives were left.

Alternate #1
Use additional base stabilization 15" to 18" under the pipe for approximately 6200± LF which also requires additional excavation for overcutting the trench.

The additional cost for base stabilization is estimated at 1500± CY at $12.35 (original bid price) = $18,525.00. A new item had to be negotiated for additional excavation to overcut the trench for putting base stabilization. The additional cost is estimated at 6200± LF at $4.50 (negotiated price) = $27,900.00; which, makes the total additional cost at $46,425.00.

Alternate #2
Use extensive wellpoint system and dewater 6200± LF at original bid price of $24.50. This additional cost is $151,900.00.

As it is obvious, there is a tremendous cost difference between the two alternates. The Engineering Department had lengthy discussions with the contractor on the above and it was concluded that dewatering might not have worked since there is clay on the bottom of the trench and the gravel formation does not go all the way to the bottom, and a complex wellpoint system could not adequately dewater the ground water from up above. Therefore, dewatering was ruled out and overcutting the trench to put base stabilization was the cheapest and probably the only method to control ground water on this project.

George West from Army Corps is quite aware of the fluid ground conditions that have existed and concurs with our decision.

THE CITY OF FORT WAYNE

CITY-COUNTY BUILDING • ONE MAIN STREET • FORT WAYNE, INDIANA 46802

board of public works

June 8, 1981

The Common Council
Fort Wayne, IN

SUBJECT: CHANGE ORDER #1, ST. JOE STUDY AREA, RESOLUTION 312-80
FEDERAL GRANT NUMBER C-180599-06

Gentlemen and Mrs. Schmidt:

Change Order No. 1 with Weitzel Construction in the amount of $118,071.00 on Federal Grant C-180599-06, St. Joe Study Area - Resolution 312-80 has been approved by the Board of Works (Federal Funded Project).

Said change is required due to excessive fluid ground conditions.

Special Ordinance for formal approval will be submitted in the near future.

Yours truly,

BOARD OF PUBLIC WORKS

MARK L. AKERS, CHAIRMAN

CITY OF FORT WAYNE

WIN MOSES, JR., MAYOR

sa
approved:

ATTEST: Charles W. Westerman
Charles Westerman, City Clerk

5332

TITLE OF ORDINANCE CHANGE ORDER #1, ST. JOE STUDY AREA, SEWER IMP. RES. 312-80, FEDERAL GRANT NO. C-180599-06

DEPARTMENT REQUESTING ORDINANCE BOARD OF PUBLIC WORKS

S-81-06-24

SYNOPSIS OF ORDINANCE CHANGE ORDER #1, ST. JOE STUDY AREA, SEWER IMPROVEMENT RES. 312-80 FEDERAL GRANT NO. C-180599-06, WEITZEL CONSTRUCTION CONTRACTOR. THIS CHANGE IS DUE TO EXCESSIVE FLUID GROUND CONDITIONS.

Prior Approval Required and attached

EFFECT OF PASSAGE CONTINUATION OF ST. JOE STUDY AREA SANITARY SEWER.

EFFECT OF NON-PASSAGE THE ABOVE DESCRIBED PROJECT CANNOT BE COMPLETED.

MONEY INVOLVED (DIRECT COSTS, EXPENDITURES, SAVINGS) $118,071.00 TO BE PAID AS FOLLOWS: (75%) EPA, (10%) STATE, (15%) CITY UTILITIES.

ASSIGNED TO COMMITTEE

sa